

Module 11 Lesson Plan

Strategies for Rural Driving



Content

Essential Knowledge and Skills 22

- Crash Statistics
- Rural Road Characteristics
- Time and Space Management Strategies
- Driving on Two-Lane Roads
- Driving on Multi-Lane Roads
- Passing and Being Passed
- Highway Hypnosis
- Slow Moving Vehicles
- Night Driving
- Rural Railroad Crossings
- Animals
- Assignment
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Lesson Objective: The student distinguishes how driving conditions and characteristics in rural areas are different from other driving environments and applies a time and space management system with vision control, motion control, and steering control for good driving habits within rural driving environments.

M11—Strategies for Rural Driving

Instructional Topic	Content	Slide
CRASH STATISTICS	Introduce, model, practice and discuss Montana had the nation's highest death rate on all roads during 2004	T11-1
	<ul style="list-style-type: none"> 96 percent of Montana roadways are considered rural 57 percent of all crashes in Montana occurred on rural roadways 	
	The high percentage of rural roadways in Montana may account for Montana's high fatality rate which is consistently higher than the United States fatality rate	T11-2
	<ul style="list-style-type: none"> Rural crashes are more likely to be head-on collisions Rural crashes involve more vehicle rollovers, collisions with fixed objects and serious injuries It takes emergency medical services longer to reach rural crash scenes than urban crashes 	T11-3
	A federal study found that, in addition to more fatalities, there is a greater chance of severe vehicle damage in rural area crashes and of people being ejected from their cars	T11-4 T11-5
RURAL ROAD CHARACTERISTICS	Introduce, model, practice and discuss	T11-6
	<ul style="list-style-type: none"> Many rural roads were designed when traffic speeds were slower and modern engineering was not available Rural roads: <ul style="list-style-type: none"> ... Have fewer traffic signs, sharper curves, and steeper hills ... Are not as crowded as urban roads and often have high speed limits ... May not have advisory speed limits posted beneath curve warning signs ... Have fewer hazards than urban roads, but speed limits allow hazards to be reached more quickly 	T11-7
◆ Narrow Width		T11-8
	<ul style="list-style-type: none"> Older rural roads may be narrow without shoulders or have uneven shoulders and poor drainage ... Mailboxes, signs, and trees may be closer to the edge of the roadway 	T11-9

Student Learning Activities

Resources



Montana Driver Education and Training

Strategies for Rural Driving



M11-1

Crash Statistics

- Montana roadways are 96 percent rural
- During 2004, 57 percent of all crashes in Montana occurred on rural roadways
- Montana has the nation's highest death rate on all roads



M11-2

Crash Statistics

The high percentage of rural roadways in Montana may account for the high fatality rate

- Rural crashes are more likely to be head-on collisions
- Rural crashes involve more single vehicle rollovers, collisions with fixed objects and serious injuries
- It takes emergency medical services longer to reach rural crash scenes than urban crashes



M11-3

Rural Roads Narrow Width

Narrow roads may have:

- No shoulders or uneven surfaces
- Poor drainage
- Mailboxes, signs, and trees closer to the edge of the roadway



What driver behavior could cause a driver to hit this tree?



M11-7



What might have caused the driver to lose control?



M11-4

M11



How many potential hazards exist in this scene?



M11-8

Crash Statistics

A federal study found that there is a greater chance of severe vehicle damage in rural area crashes and of people being ejected from their cars



What could contribute to people being ejected from their cars?



M11-5



How many potential hazards exist in this scene?



M11-9

Rural Road Characteristics

Many rural roads were designed when traffic speeds were slower and modern engineering was not available



- Few traffic signs, sharp curves, and steep hills
- Less crowded and often have high speed limits
- May not have advisory speed limits posted beneath curve warning signs
- Fewer hazards than urban areas but higher speed limits allow hazards to be reached more quickly



M11-6

Instructional Topic	Content	Slide
◆ Speed	<p>The speed limit on state highways in Montana is 70 mph</p> <ul style="list-style-type: none"> • U.S. 93 speed limit is 65 mph • Local authorities set the speed limits on county roads - usually at 70 mph • Rural interstate highway speeds are up to 75 mph for passenger vehicles and 65 mph for large trucks 	T11-10
◆ Uneven Surface	<p>Roadways can be paved, patched, broken, or gravel pavement resulting in inconsistent traction</p> <ul style="list-style-type: none"> • Potholes and roadway patches create ridges that affect vehicle balance and steering problems • "Washboard" surfaces are uneven sections of unpaved roads that can cause tires to lose traction on the roadway • Changing roadway surfaces can create situations where drivers could lose control of their vehicle • Soft and unmarked shoulders are especially hazardous at night 	T11-11
◆ Signs and Markings	<p>Rural roads have less traffic, few traffic controls and few roadway markings</p> <ul style="list-style-type: none"> • Some rural roads do not have roadway markings • Many lack adequate crash protection devices • Traffic signs may not be present 	T11-12
◆ Roadway Hazards	<p>Rural roads may have more hazards</p> <ul style="list-style-type: none"> • They are not cleaned as often as city streets • Drivers will see accumulations of mud, leaves, snow and ice, sand, dirt and oil ... These conditions often create traction hazards • Other roadway debris such as tire fragments, dead animals, collision debris, along with roadside stands or vehicles mowing or spraying the shoulders of the roadway, and mail delivery, also create hazards • Snow removal may not occur after certain hours, such as midnight ... Piles of snow can cause Line of Sight/Path of Travel (LOS/POT) restrictions 	T11-13

Student Learning Activities

Resources



Maximum Speed Limits

- The speed limit on Montana's state highways is 70 mph
- Local authorities set the speed limits on county roads – usually at 70 mph
- U.S. 93 has a speed limit of 65 mph
- Rural interstate highway speeds are up to 75 mph for passenger vehicles and 65 mph for large trucks

Speed Limit
65Speed Limit
75

M11 - 10

Uneven Surface

- Roads can be broken pavement or gravel creating inconsistent traction
- "Washboard" surfaces can cause loss of traction
- Changing road surface can cause loss of control
- Soft and unmarked shoulders are especially hazardous at night



M11 - 11

Signs and Markings on Rural Roads

- Traffic controls and roadway markings are inadequate
- Crash protection devices found on urban roads are lacking
- Signs may or may not be accurate or present



M11 - 12

M11

Rural Road Hazards

- Rural Roads may:
- Have more hazards
 - Not be cleaned as often as city streets
 - Contain roadway debris
 - Have less snow removal



The markings on this road are difficult to see. Is this a common rural problem?



M11 - 13

Instructional Topic	Content	Slide
<p>◆ Mud, Gravel, Dirt</p>	<p>During seeding and harvest season rural roadways may have large chunks of mud in and along the side of the road</p> <ul style="list-style-type: none"> • Dirt and gravel can accumulate on the windows creating vision problems and/or cracked windshields ... Increasing following distance, adjusting lane position, and reducing speed will help prevent rocks and gravel from hitting the windshield • In an area where dirt and gravel are present, mud guards/flaps on the vehicle can help protect other vehicles from flying debris • Avoid debris by adjusting lane position to LP2 or 3 unless there is a LOS/POT restriction 	<p>T11-14</p> <p>T11-15</p>
<p>◆ LOS Restrictions</p>	<p>Rural roads can have many line-of-sight restrictions</p> <ul style="list-style-type: none"> • Tall crops planted near the edge of the roadway, overhanging trees, bushes and weeds, especially at intersections, can create LOS obstructions • Fences close to the roadway edge can create large visual obstructions • Hills and curves may not be marked so driving at a speed that exceeds a clear line of sight can be a risky behavior 	<p>T11-16</p>
<p>◆ Reduced Lighting</p>	<p>Rural roads may have low level lighting or no lighting to help drivers see the roadway</p> <ul style="list-style-type: none"> • Look for headlights of other vehicles approaching or crossing intersections ahead • The right side of the lane may not have the painted white fog line • Signs are typically retro-reflective to help drivers identify them • When the headlights of a car illuminate a retro-reflective surface the reflected light is directed toward the car and its driver and is not wasted by going in all directions as with diffuse reflection 	<p>T11-17</p>
<p>◆ Advisory Speed Signs</p>	<p>Advisory speed limit signs are posted in advance of curves on many roads</p> <ul style="list-style-type: none"> • These signs provide suggested speed limits for IDEAL conditions • Advisory speed signs are posted below the warning sign 250 to 700 feet before the hazard (curve or intersection) • Depending on the type of vehicle driven and weather or surface conditions, slowing below the advisory speed may be required 	
<p>TIME AND SPACE MANAGEMENT STRATEGIES</p>	<p>Introduce, model, practice and discuss</p> <p>Note: Refer to Module 6 for details on time and space management strategies</p> <ul style="list-style-type: none"> • Apply space management strategies when driving in rural areas • Higher speeds result in less time to: <ul style="list-style-type: none"> ... identify potential hazards, ... predict what will happen, ... decide what to do, ... and less time to react. 	<p>T11-18</p>

Student Learning Activities

Resources



How can an oncoming driver avoid this debris in the road?

M11 - 14

Rural Road Characteristics

Mud, Gravel and Dirt

- Harvest season can create large chunks of mud in and along the side of the road
- Vehicle windows can accumulate dirt and gravel



M11 - 15

Line-of-Sight (LOS) Restrictions

- Hills and curves can restrict LOS
- Crops, trees and bushes can create LOS restrictions
- Fences close to the roadway edge can create large visual obstructions



M11 - 16

Reduced Lighting on Rural Roads

- Low lighting or no lighting to help drivers see the roads
- Right side of lane may not have a painted white fog line
- Retro-reflective signs are more visible to the driver



M11 - 17

Good Habits to Manage Time and Space

Use longer following distances when:

- Following a snowplow
- Following farm equipment
- Pulling a trailer
- Driving on surfaces with less traction
- Visibility is reduced
- Other?

- Use your orderly visual search pattern
- Search 20-30 seconds ahead (1/2 to 3/4 mile)
- Reduce speed when there is a line-of-sight or path-of-travel restriction



M11 - 18

M11

Instructional Topic	Content	Slide
TIME AND SPACE MANAGEMENT STRATEGIES (Cont.)	<ul style="list-style-type: none"> • Use your orderly visual search pattern • At highway speeds the 20-30 second visual lead will be approximately one-half to three-fourths of a mile ahead of the vehicle • Separate hazards by avoiding meeting oncoming traffic at the same time another hazard occurs • Adjusting speed allows a driver to deal with one hazard at a time 	
<p>◆ Following Distance</p>	<p>Maintain at least a 3-4 second or more following distance</p> <ul style="list-style-type: none"> • Longer following distances allow for more control when: <ul style="list-style-type: none"> ... Being tailgated ... Driving on a steep downhill ... Following a motorcycle ... Following a snowplow ... Following a tractor with equipment attached ... Pulling a trailer ... Following a large vehicle (truck, bus, or motor home) ... Driving on slick or gravel surfaces 	
DRIVING ON TWO-LANE ROADS	<p>Introduce, model, practice and discuss</p> <p>Note: Details on driving through curves is in Module 10</p>	
<p>◆ Rural Hills</p>	<p>Many rural roads are two lanes, often narrow, with minimal markings</p> <ul style="list-style-type: none"> • Many rural roadways have sharp curves • Crashes often occur due to excessive speed going into a curve <ul style="list-style-type: none"> ... Control the curve by controlling speed before the curve • Use the four-step approaching to cornering (see Module 10) <p>Hills are not usually marked unless they are very steep</p> <ul style="list-style-type: none"> • Be aware of slower vehicles that may have difficulty maintaining speed going up hills (examples include trucks, buses, etc.) • On narrow, one-lane roads, vehicles traveling uphill have the right of way over vehicles traveling downhill 	T11-19
<p>◆ Rural Intersections</p>	<p>Intersections may be difficult to see</p> <ul style="list-style-type: none"> • Identifying rural intersections early can help predict potential conflicts • Many rural intersections are uncontrolled • The controlled intersections may have signs but not automated signals • Many rural intersections only have signs; most do not have any signs or traffic controls • Intersections can be hidden by bushes, crops, trees, etc. 	T11-20


Student Learning Activities

Resources



Two-Lane Rural Roads

- Curves
 - May be sharp and lack warning signs
 - May be narrow without shoulders
- Hills
 - Usually not marked unless very steep
 - Some vehicles may have difficulty maintaining speed going uphill
 - Uphill vehicles have the right of way




OPI M11 - 18

M11

Two-Lane Rural Intersections

- Many are uncontrolled and hidden
- Identify intersections early by looking for:
 - Loose gravel in the roadway
 - Electrical, telephone, or utility lines
 - Reflectors marking driveways
 - Mailboxes – may be across the road from the driveway



OPI M11 - 19

Instructional Topic	Content	Slide
<p>◆ Rural Intersections (Cont.)</p> <p>◆ T-Intersections</p> <p>◆ Y-Intersections</p>	<p>Rural intersections, driveways, ditch bank roads, and other farm access roads can be identified by looking for clues such as</p> <ul style="list-style-type: none"> ... Loose gravel projecting out into the roadway ... Electrical, telephone, or other utility lines crossing the roadway ... Reflectors marking driveways ... Mailboxes may be across the road from a driveway <p>T- intersections can be on hills and/or curves making them even more dangerous because of the LOS restrictions</p> <ul style="list-style-type: none"> • Many rural T- intersections are not controlled ... The driver on the side road must yield to the driver on the main road ... Side roads may be difficult to see in rural areas <p>Y-Intersections are roadways that meet at odd angles</p> <ul style="list-style-type: none"> • Often located where a minor roadway meets a major roadway • Drivers can become confused by Y-intersections traffic signs; know which sign belongs to each of the intersecting roads • The driver on the left must yield to the driver on the right 	<p>T11-21</p>
<p>DRIVING ON MULTI-LANE ROADS</p> <p>◆ Multi-lane Roadways with Center Lines</p> <p>◆ Divided Roadways</p>	<p>Introduce, model, practice and discuss</p> <p>Rural roads can have multi-lanes</p> <ul style="list-style-type: none"> • Some multi-lane roadways have two-lane roads crossing a four-lane (or more) highway • Some multi-lane roadways may intersect with other multi-lane roadways • Multi-lane roadways have intersections making them different from interstate highways which have on and off ramps • Unless otherwise posted, drive in the right lane whenever possible ... Gives the best separation from oncoming traffic <p>Some multi-lane roadways have only yellow lines separating high speed traffic traveling in opposite directions</p> <ul style="list-style-type: none"> • Never cross a double yellow line except to make a left turn or to avoid an obstacle in the lane with no on-coming traffic <p>Some rural roadways have divided roadways separated by guardrails or median strips</p> <ul style="list-style-type: none"> • A median strip is an area of ground separating opposite flows of traffic • Medians can range from inches to several feet wide • Drivers must yield to on-coming traffic when turning across traffic 	<p>T11-22</p>

Student Learning Activities

Resources



Rural Two-Lane Intersections

- T-intersections – the driver on the main road has the right of way
- Y-intersections may be controlled by signs – know what the sign means before moving into the intersection



M11 - 21

Rural Multi-Lane Roads

- Multi-lane roads have four or more lanes
- Intersections may or may not have traffic signs/signals
- Two-lane roads may cross a multi-lane road
- Multi-lane roads may be divided by a guardrail or a median strip



M11 - 22

M11

Instructional Topic	Content	Slide
<p>◆ Scenic Byways</p>	<ul style="list-style-type: none"> • All are marked with brown signs • Scenic and Historical byways are usually two-lane paved roads • Backcountry Byways tend to be gravel roads • Many byways have steep grades, can be narrow and windy, and often closed in the winter because of snow <p>Montana's legislature passed a law in 1999 that created Montana's scenic/historic byways program.</p> <ul style="list-style-type: none"> • The Beartooth Highway from eight miles south of Red Lodge to Colter Pass is designated a National Scenic Byway, also known as an All-American Road <p>Introduce, model, practice and discuss Note: See Module 7 for details on good habits for passing</p>	<p>T11-23</p> <p>T11-24</p> <p>T11-25</p>
<p>PASSING AND BEING PASSED</p>	<p>Low traction, inadequate lighting, narrow roads, and high speeds are examples of possible hazards when passing on two-lane rural roadways</p> <ul style="list-style-type: none"> • Passing on two-lane rural roads can be very risky 	<p>T11-26</p>
<p>◆ Two-lane Roads</p>	<p>Risk vs. Gain</p> <ul style="list-style-type: none"> • Consider passing if these questions can be answered with a "yes" ... Is it necessary? Is it legal? Is it safe? Is it worth the risk? 	<p>T11-27</p>
<p>◆ No Passing Zones</p>	<p>Note: See Module 7 "Passing Laws"</p> <p>No-passing zones help improve safety on county roads</p> <ul style="list-style-type: none"> • Curves, hills, other visual limitations, and safety hazards, are important reasons why traffic engineers paint portions of county roads with double-yellow lines • Drivers who ignore no-passing zones are risky drivers who also endanger the lives of their passengers and the innocent occupants of the vehicles ahead that may not be able to see oncoming vehicles 	<p>T11-28</p>
<p>◆ Deciding to Pass</p>	<p>Before passing on a two lane rural road, know the answers to these questions:</p> <ul style="list-style-type: none"> ... How wide is the road? ... Are there wide shoulders? Paved or gravel? ... What other possible risks might be encountered on rural roadways? (Intersections, curves, hills, railroad crossings, bridges, underpasses, no-passing zones, limited visibility due to snow, rain, fog, dust and other severe weather) ... How far away and what is the speed of the oncoming vehicle? ... Is the driver ahead staying within the speed limit? ... Are there driveways and intersections where vehicles may be hidden? ... Is a vehicle ahead preparing to turn left in your planned path of travel? 	<p>T11-29</p>

Student Learning Activities

Resources



Scenic Byways

- Scenic byways are highways and local roads officially recognized as scenic or historical by the federal or state government



M11 - 23

Three Types of Scenic Byways



- Scenic, Historical and Backcountry
- All are marked with brown signs
- Scenic and historical byways are usually two-lane paved roads
- Many byways have
 - Steep grades that are closed in winter
 - Narrow, windy roads

M11 - 24

Scenic Byways

- In 1999, a law was passed to create Montana's scenic/historic byways program
- The Beartooth Highway from eight miles south of Red Lodge to Colter Pass is designated a National Scenic Byway



M11 - 25

M11



You are the driver of the oncoming white car behind the red pickup truck in front of you. When will it be safe to pass the pickup truck?

M11 - 26

Passing on Two-Lane Rural Roads



- Passing on two-lane rural roads can be very risky because:
 - Low traction
 - Narrow roads
 - Low lighting
 - High speeds

M11 - 27

Passing on Two-Lane Rural Roads



- No-passing zones help improve safety
 - Double-yellow lines are painted in locations with visual limitations
- Ignoring no-passing zones can risk the lives of your passengers and innocent occupants of the vehicle ahead that may not be able to see oncoming vehicles

M11 - 28

Deciding to Pass

- Before passing, know the answer to these questions:
 - What is the road width?
 - Are there shoulders?
 - Are there LOS/POT restrictions?
 - How far away is the oncoming vehicle?
 - Is the oncoming driver driving within the speed limit? Is the vehicle turning left?
 - Are there hidden driveways or intersections?



M11 - 29

Instructional Topic	Content	Slide
<p>◆ Preparing to Pass</p>	<p>Pass only where there is a long, straight open zone</p> <ul style="list-style-type: none"> • Keep a following distance of at least three seconds behind the vehicle to be passed • Do not initiate the pass unless there is a clear open front zone • Search for vehicles going slowly, turning, or preparing to stop <ul style="list-style-type: none"> ... Slow moving vehicles could mean the driver is searching for a location and could change speed or direction quickly ... Look for turn signals or wheels turned to indicate the driver will be turning left, closing the front zone • Is the vehicle going the speed limit? <ul style="list-style-type: none"> ... If yes, passing will require an increase in speed of 5-10 mph—exceeding the speed limit by up to 10 mph is legal for passing as long as the driver returns to the posted speed after passing; except for US Highway 93—drivers may not exceed the posted speed limit 	<p>T11-30</p> <p>T11-31</p> <p>T11-32</p>
<p>◆ Passing on Multi-lane Roads</p>	<p>Multi-lane roads may have heavier traffic</p> <ul style="list-style-type: none"> • Search the rear zones for other drivers signaling or making a passing maneuver <ul style="list-style-type: none"> ... Someone else may be moving into the lane you want to use • Check traffic in the front zones <ul style="list-style-type: none"> ... Sometimes drivers drive too slowly in the left lane, causing others to use the right lane for passing—pass with caution • Some two-lane roads have special passing lanes to enable drivers to pass slower moving vehicles <ul style="list-style-type: none"> ... The lane markings identify the direction of traffic permitted to use the passing lane ... These are usually present on long uphill grades 	<p>T11-33</p>
<p>◆ Being Passed</p>	<p>Being passed on narrow two-lane roads carries some responsibility</p> <ul style="list-style-type: none"> • To assist someone wanting to pass: <ul style="list-style-type: none"> ... Move to lane position three to increase their visibility and space cushion ... Reduce speed to help them pass quickly ... Adjust speed for proper following distance whether the driver passes or not • Do NOT speed up to prevent the other driver from passing—it's illegal and risky 	<p>T11-34</p>
<p>HIGHWAY HYPNOSIS</p>	<p>Introduce, model, practice and discuss</p> <p>Driving at a constant speed on a road with little traffic can contribute to fatigue, boredom, or just getting accustomed to the speed</p> <ul style="list-style-type: none"> • <u>Highway Hypnosis definition:</u> <ul style="list-style-type: none"> ... To become hypnotized, or go into a dreamlike state ... The past few seconds of driving can't be remembered • Hypnosis can occur when driving long distances with little traffic on the road <ul style="list-style-type: none"> ... The road tends to be straight and boring ... Describe Montana roads known to meet this criteria • Prevent these situations by staying well rested, and taking needed rest breaks 	<p>T11-35</p>

Student Learning Activities

Resources



The driver of the vehicle ahead has moved to lane position 5

If you were following this vehicle, would you pass?

Why?

Why not?



M11 - 18

Preparing to Pass on Two-Lane Rural Roads

- Before passing know if you have a long, straight, open zone to complete the pass
 - Keep a following distance of at least three seconds
 - Search for vehicles slowing, turning or preparing to stop
 - Estimate passing distance needed, you need to increase speed by 10 mph to pass another vehicle



M11 - 21



What do these two roads have in common?



M11 - 22

M11

Passing on Multi-lane Rural Roads



- Be prepared for heavier traffic
 - Search rear zone
 - Check traffic speed in the front zones
 - If a passing lane is ahead, wait to pass there
- Usually available on long grades



M11 - 23

Being Passed on Rural Roads

- When being passed, drivers carry some responsibility to help the driver pass safely
 - Move to LP3 to increase the other driver's visibility and space cushion
 - Reduce speed to help them pass quickly
 - Adjust your following distance
 - Never speed up to prevent the other driver from passing—it's illegal and very risky



M11 - 24

Highway Hypnosis

- Highway hypnosis is when a driver goes into a dreamlike state, not remembering the last few seconds (or longer) of driving
- Driving at a constant speed on a road with little traffic can contribute to fatigue, boredom or getting accustomed to the speed



M11 - 25

Instructional Topic	Content	Slide
HIGHWAY HYPNOSIS (Cont.)	<ul style="list-style-type: none"> Some roadways have rumble strips to alert drivers when their vehicle is leaving the path of travel ... Some rural intersections have rumble strips as you approach the intersection 	T11-36
◆ Velocitation	<ul style="list-style-type: none"> <u>Velocitation definition</u>: From the word velocity ... Unconsciously driving faster than intended ... The speed “feels” slower than it actually is When leaving a higher speed roadway to enter a slower speed roadway, drivers may feel as though they are going slow even though they are exceeding the speed limit ... Drivers risk getting a speeding ticket 	T11-37
SLOW MOVING VEHICLES	<p>Introduce, model, practice and discuss</p> <p>A 48-year-old father of three was driving a tractor pulling a hay baler when a car hit the tractor as it was trying to make a left turn. The driver of the automobile was attempting to pass the tractor when the crash occurred. The automobile driver was treated and released from the hospital. The driver of the tractor was pronounced dead at the scene by the county coroner.</p>	
◆ Situation Analysis	<p>How could this situation have been avoided?</p>	
◆ Slow Moving Vehicles in Rural Areas	<p>Slow moving vehicles are designed to travel no faster than 25 mph; some can move faster</p> <ul style="list-style-type: none"> All slow-moving vehicles must have a foot brake and turn signals and must display the approved emblem for slow-moving vehicles Slow moving vehicles may travel upon public highways during daylight hours only, except for emergency and snow removal and farm equipment operated on non-interstate highways and equipped with flashing lights visible for 500 feet 	T11-38
	<p>There are a variety of slow moving vehicles traveling on rural roads</p> <ul style="list-style-type: none"> “Wide Load” vehicles carrying homes, trailers, heavy equipment Farm equipment; combines, tractors, harvesters, towing equipment Snowplows or de-icing trucks Off-road vehicles (ATV’s and snowmobiles) 	T11-39 T11-40
◆ Cautions	<p>Slow moving vehicles can create problems</p> <ul style="list-style-type: none"> Traffic can be backed up behind the vehicle resulting in rear end crashes Most slow moving vehicles are wide or have equipment that projects out to the sides, making passing difficult ... It is difficult to see around them ... The load they are hauling could spill debris 	T11-41

Student Learning Activities

Resources



Highway Hypnosis

- Safety features to help prevent highway hypnosis include:
 - Rumble strips to alert drivers they are leaving their lane or entering an intersection



M11 - 36

Velocitation

- Occurs when a driver drives faster than intended because the speed “feels” slower than it actually is
 - Typically can occur when leaving a high-speed roadway to merge onto a slower speed roadway
 - The result may be exceeding the speed limit



M11 - 37

Slow Moving Vehicles - Definition

- Designed to travel no faster than 25 mph
- Must have a foot brake and turn signals
- Must display the “slow moving” emblem
- May travel on public roadways during daylight hours
 - Exception for emergency, snow removal equipment and farm equipment on non-interstate highways and equipped with flashing lights visible for 500 feet



M11 - 38



Identify the required equipment on this slow moving vehicle that permits it to be driven on public roads



M11 - 39

M11

Slow Moving Vehicles on Rural Roads

- The variety of vehicles includes:
 - “Wide loads” carrying modular homes, trailers, heavy equipment
 - Farm equipment
 - Snowplows and de-icing trucks
 - Off-road vehicles such as ATVs and snowmobiles



M11 - 40

Slow Moving Vehicle Cautions

- Slower vehicles can create problems:
 - Traffic backing up resulting in rear-end collisions
 - Wide loads making it difficult to pass
 - Hauled equipment spilling debris
- Montana Slow Moving Vehicle Law
 - Any vehicle traveling so slowly that it delays three or more vehicles must turn off the road where safe and allow other vehicles to pass



M11 - 41

Instructional Topic	Content	Slide
<p>◆ Cautions (Cont.)</p>	<ul style="list-style-type: none"> • Slow moving vehicles law: MCA 61-8-311 Section two "Turning out of slow moving vehicles" ... Any vehicle traveling so slowly that it is delaying three or more other vehicles in a rural area or on a two-lane highway must turn off the road wherever safe to let the other vehicles pass • Slow moving tractors pulling equipment have lights on the tractor, but the equipment could protrude creating a hazard • Identify slow moving vehicles early ... Maintain a safe following distance ... Do not attempt to pass unless a clear LOS is seen ... Approach with caution ... Attached equipment may project out further than predicted ... Pass slowly and carefully • Be aware of slower moving vehicles while driving up and down hills • Reduce speed approaching a vehicle going uphill until the slower vehicle crests the hill 	T11-42
<p>NIGHT DRIVING</p>	<p>Introduce, model, practice and discuss Rural roads often are not well lit by other vehicles, street lights or building lights</p> <ul style="list-style-type: none"> • Headlights and taillights must be lit from sunset to sunrise and when visibility is poor and when there is not sufficient light to clearly see persons and vehicles on the highway at a distance of five hundred (500) feet ahead • Headlights must be dimmed 1,000 feet before meeting and 500 feet before overtaking another vehicle • When lights are needed for driving, use headlights, not parking lights • Keep the windshield clean both inside and out, to prevent glare • Do not look directly at the oncoming headlights • Glance to the right edge of the roadway or fog line to help maintain lane position 	T11-43
<p>RURAL RAILROAD CROSSINGS</p>	<p>Introduce, model, practice and discuss</p> <ul style="list-style-type: none"> • There are nearly 252,000 railroad crossings in Montana ... Montana has 2,445 public and private railroad crossings • Approximately every two hours in the United States, either a vehicle or a pedestrian is struck by a train—that's 12 incidents each day! • Rural railroad crossings are less likely to have lights, bells, and whistles than the urban areas ... Many crossings may only have the crossbuck sign or no signs ... Treat these crossings with extreme caution and use the good habits (Module 7) for crossing railroad tracks • Search carefully and ensure how many tracks must be crossed before starting the crossing maneuver—be alert to multiple tracks • At night it may be very difficult to see a train—search and listen carefully for signs of a train 	<p>T11-44</p> <p>T11-45</p> <p>T11-46</p>

Student Learning Activities

Resources



Identify Slow Moving Vehicles Early

- Maintain a safe following distance
- Do not pass unless a clear, open LOS is seen
- Approach with caution
- Be alert for equipment projecting out
- Reduce speed uphill until the slower vehicle crests the hill



Photo courtesy of OPI Foundation

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Night Driving

- Practice these good habits:
 - Headlights and taillights lit from sunset to sunrise
 - Dim headlights 1,000 feet before meeting and 500 feet before overtaking another vehicle
 - Keep the windshield clean both inside and out
 - Glance to the right edge when oncoming vehicles approach




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Railroad Crossings

- There are nearly 252,000 highway-railroad grade crossings in the United States
 - Montana has 1,362 public crossings and
 - 1,083 private crossings



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In the United States about every two hours a vehicle or pedestrian is struck by a train

OPI

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Rural Railroad Crossings

- Rural railroad crossings are less likely to have lights, bells, and whistles than urban crossings
- Many crossings may only have a crossbuck sign or no sign
- Treat these crossings with extreme caution and use the good habits (Module 7) for crossing railroad tracks
- At night it may be very difficult to see a train—search carefully for signs of a train, especially the headlight that is more visible



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M11

Instructional Topic	Content	Slide
ANIMALS	<p>Introduce, model, practice and discuss</p> <p>In Montana about 1,800-2,000 wild animal crashes are reported each year</p> <ul style="list-style-type: none"> • Most crashes are with deer ... Many wild animal crashes go unreported to law enforcement • Reduce risk by reducing speed and always wearing a seat belt 	T11-47
	<p><u>Deer crossing and/or migration crossing</u></p> <ul style="list-style-type: none"> • The most dangerous time of day for deer-related crashes is in the early evening and early morning—the most active time for deer ... 90 percent of deer-vehicle crashes occur between dawn and dusk • The most dangerous time of year is during the mating season, in November and December • Pay close attention to signs that warn of migratory crossing • Deer, elk and other large animals can do serious damage to the vehicle and occupants 	T11-48
	<ul style="list-style-type: none"> • Watch for warning signs for animal crossings ... Reduce speed in animal crossing areas • Check the rearview mirror often when in an area where large animals could be encountered ... A sudden stop could cause a rear-end crash • Avoid high beam or flashing the headlights—the animal could become confused and move into the vehicle's path • Swerving and/or sudden hard braking to miss an animal could cause loss of control of the vehicle. Crossing the centerline into oncoming traffic or hitting a solid object (tree) or having a rear-end collision may occur ... It's better to hit an animal than to have a head on crash with another vehicle • If hitting a large animal is inevitable, use controlled braking to try to stop ---When possible reduce impact by making a glancing hit but avoid the temptation to make a swerve maneuver • Do not attempt to render aid or move the injured animal ... Inform a law enforcement officer about the animal and report damage to the vehicle if damages are above the legal amount required by law for reporting (\$750) 	T11-49
	<p>Herds</p> <ul style="list-style-type: none"> • If a herd is encountered crossing the road, stop a distance away and let the herd complete their crossing 	

Student Learning Activities

Resources



Animals

- Every year about 1,800-2,000 crashes with wild animals are reported in Montana
 - Most crashes go unreported
 - Deer are most active during early morning and evening
- The most dangerous time of year is during the mating season: November and December
- 90% of deer-vehicle crashes occur between dawn and dusk
- Large animals such as elk and deer can cause serious damage to vehicles and occupants



M11 - 47

Animal Crossings

- Reduce speed in animal crossing areas
- If a herd is on the road, stop and let the herd clear the road
- Avoid flashing headlights – the animals could become confused
- Do not swerve – it's better to hit an animal than head on into another vehicle
- If a crash with an animal is inevitable, brake firmly then release the brake just before hitting the animal it will help avoid having the animal come into the windshield
- Do not attempt to render aid to the animal
- If the damage is \$750 or more, Montana law requires drivers to contact law enforcement



M11 - 48

M11



What actions might the driver have taken to avoid this collision?



M11 - 49

Instructional Topic	Content	Slide
<div data-bbox="198 331 422 422">ANIMALS (Cont.)</div> <div data-bbox="198 447 391 512">◆ Open Range Law</div>	<p data-bbox="435 373 1084 405"><u>Montana Open Range Law MCA 60-7-102 through 60-7-203</u></p> <p data-bbox="435 407 1256 501">"Open range" means all un-enclosed lands outside of cities, villages and herd districts, upon which cattle by custom, license, lease, or permit, are grazed or permitted to roam</p> <ul data-bbox="435 506 1292 705" style="list-style-type: none"> <li data-bbox="435 506 1292 667">• The owner or person controlling the possession of any domestic animal running on open range does not have to keep the animal off any highway on open range, and is not liable for damage to any vehicle or for injury to any person riding in the vehicle if there is a collision between the vehicle and the animal <li data-bbox="435 672 899 705">• Fences do not void the open range law <p data-bbox="435 741 699 772"><u>Livestock crossing areas</u></p> <p data-bbox="435 774 1317 840">Horses, cattle, sheep, goats, and other livestock under controlled movement over a highway or road have the right of way in Montana</p> <ul data-bbox="435 842 1321 972" style="list-style-type: none"> <li data-bbox="435 842 1321 907">• When meeting or overtaking any livestock herds, be careful and cooperate with the workers in charge <li data-bbox="435 911 1321 972">• If any livestock are injured or killed by a vehicle, the driver is required by law to report it to the owner or nearest law enforcement officer 	<div data-bbox="1344 386 1421 417">T11-50</div> <div data-bbox="1344 812 1421 844">T11-51</div>
<div data-bbox="198 1144 422 1201">ASSIGNMENT</div>		
<div data-bbox="198 1465 422 1522">ASSESSMENT</div>		

Student Learning Activities

Resources



Montana Open Range Law

- Open range means all un-enclosed lands outside of cities, villages and herd districts, upon which cattle by custom, license, lease, or permit, are grazed or permitted to roam
- Fences do not void the open range law
- The owner is not required to keep animals off the road and is not liable for any damages or injury
- Animals under controlled movement in a crossing area have the right of way



M11 - 08



You are the driver, who has the right of way?



M11 - 01

M11